

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A recording medium, comprising:
 ~~a data area including at least two data sections; and~~
 a linking area to link two neighboring data sections, the linking area including at least two frames of the same size and scrambled ~~user~~-data produced by scrambling ~~user~~-data with a scrambling key, the scrambling key being associated with a preceding data section.
2. (Currently Amended) The recording medium of claim 1, wherein the linking area further includes at least one of parity data and two frame sync signal~~the scrambled user data has a lower digital sum value than the user data.~~
3. (Cancelled)
4. (Cancelled)
5. (Currently Amended) The recording medium of claim 1, wherein the scrambling key is includes at least part of a physical address.
6. (Cancelled)
7. (Currently Amended) The recording medium of claim 5, wherein the physical address is a part of a preceding ~~previous~~ physical cluster.
8. (Cancelled)
9. (Original) The recording medium of claim 5, wherein the physical address includes the

scrambling key having a predetermined number of bytes.

10. – 12. (Cancelled)

13. (Currently Amended) A method of forming a recording medium, comprising:
scrambling ~~user~~-data with a scrambling key, the scrambling key being associated with a preceding data section; and
writing the scrambled ~~user~~-data in a linking area to link neighboring data sections of a data area on the recording medium.

14. (Currently Amended) A method of claim 13, wherein the scrambling key ~~is~~ includes part of a physical address of a ~~previous preceding physical data section~~ cluster.

15. (Cancelled)

16. (Currently Amended) A method of claim 13, wherein the scrambling key ~~is~~ includes part of a physical address of the preceding data section ~~a previous~~ and a subsequent ~~physical data~~ section.

17. (Currently Amended) A method of claim 13, wherein the scrambling key ~~is~~ includes part of a physical address of a current physical data section.

18. (Currently Amended) A method of reproducing data from a recording medium, comprising:
utilizing a linking area including at least two frames of the same size, including scrambled user data, which links neighboring data sections of a data area, to reproduce the data, wherein the linking area links neighboring data sections and includes scrambled data produced by scrambling with a scrambling key associated with a preceding physical data section.

19. (Cancelled)

20. (Currently Amended) A method of claim ~~19~~ 18, wherein the scrambled ~~user~~-data has been scrambled using scrambling key data included in a physical address being part of the preceding a previous physical data section.

21. (Currently Amended) A method of claim ~~19 or~~ 20, wherein the scrambling key data is used to descramble the scrambled ~~user~~ data.

22. (Currently Amended) A method of claim 21, wherein the utilizing step includes step for descrambling the scrambled ~~user~~ data using the scrambling key data.

23. – 26. (Cancelled)

27. (Currently Amended) A method of recording data on a recording medium, comprising:
utilizing a linking area, ~~including scrambled user data, which links neighboring data sections of a data area,~~ to record the data,
the linking area links two neighboring data sections and includes scrambled data scrambled with a scrambling key associated with a preceding physical data section.

28. (Currently Amended) A method of claim 27, wherein the ~~scrambled user data is scrambled with a scrambling key~~ includes ~~included in a part of a previous~~ the preceding physical data section.

29. (Currently Amended) A method of claim 27, wherein the ~~scrambled user data is scrambled with a scrambling key~~ includes ~~included in a physical address which is a part of a previous~~ the preceding physical data section.

30. (Cancelled)

31. (Currently Amended) A method of claim 27, wherein the ~~scrambled user data is scrambled with a scrambling key~~ includes a ~~included in the physical address, which is part of the preceding physical data section a previous and a subsequent physical data sections~~ section.

32. (Cancelled)

33. (Currently Amended) An apparatus for reproducing data from a recording medium, said apparatus utilizing a linking area, ~~including scrambled user data, which links neighboring data sections of a data area,~~ to reproduce the data,

the linking area links neighboring data sections and includes scrambled data scrambled with a scrambling key associated with a preceding physical data section.

34. (Currently Amended) The apparatus of claim 33, further comprising:
a scrambler for receiving user data and ~~a~~ the scrambling key to produce the scrambled ~~user~~ data, and
an adder for adding additional data to the scrambled ~~user~~ data.
35. (Currently Amended) The apparatus of claim 34, wherein the scrambling key is received from control data included in the preceding physical ~~a previous~~ data section.
36. (Currently Amended) A method of scrambling data for recording on a recording medium, comprising:
loading a partial physical address into a shift register;
outputting a scrambling byte for each shift of the shift register; and
combining each scrambling byte with a byte of ~~user~~ data.
37. (Currently Amended) A method of constructing a linking frame on a recording medium, comprising:
scrambling ~~user~~ data with a scrambling key associated with a preceding data section;
combining additional data with the scrambled ~~user~~ data; and
writing the combined scrambled data as the linking frame to link neighboring data sections of a data area on the recording medium.